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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,443	11/20/2003	Jan Van Elp	081468-0306945	6646
909	7590	10/26/2004	EXAMINER	
PILLSBURY WINTHROP, LLP			NGUYEN, HUNG	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2851	

DATE MAILED: 10/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/716,443

**Applicant(s)**

ELP ET AL.

**Examiner**

Hung Henry V Nguyen

**Art Unit**

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 20-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-17 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/971,769.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/03</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of group I (claims 1-19) in the reply filed on August 26, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Sweat et al (U.S.Pat. 6,469,827).

With respect to claims 1, 6-7, 15 and 19, Sweat et al (figure 8) discloses a radiation source apparatus and a corresponding lithographic projection apparatus (see col.5, lines 4), comprising all basic features of the instant claims such as: a radiation source (110) unit supplying radiation of desired wavelength and radiation of undesired wavelength; and an optical device (118) having diffraction grating functions as a grating spectral filter for passing without changing of the radiation of desire wavelengths to form a projection beam of radiation and for deflecting the radiation of undesired wavelength (see col.8, lines 50-56); a projection system for projecting the patterned beam onto a target portion of the substrate (see col.9, lines 11-16); a patterning structure (70, 126) having a desired pattern formed thereon and a substrate (78). Although Sweat et al does not specifically disclose the support structure and a substrate table, these elements are inherent elements of a lithographic projection apparatus and they must be present for the apparatus to function as intended.

As to claims 2, Sweat et al teaches the grating spectral filter having a blazed grating configuration (see col.5, lines 8-10).

As to claim 3, Sweat et al suggests that the grating spectral filter has a blazing angle less than about  $2.5^\circ$  (see col.3, line 8).

As to claim 4, Sweat et al teaches the grating spectral filter having a line density in the range of from 200 to 700 lines per mm (see col.8, lines 30-35 and claim 31 of Sweat et al ).

As to claim 5, Sweat et al teaches the grating spectral filter being a laminar grating (see figures 7-9).

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As to claims 8-9, the grating spectral filter is substantially formed of a material having a refractive index close to unity at the desire wavelengths and the grating spectral filter comprises silicon (see col.6, lines 29-40).

With respect to claims 10-12, Sweat et al further teaches a cooling element having coolant channels, provided in thermal contact with the grating spectral filter (see col.8, lines 57-63, abstract and claim 38).

Regarding claims 13-14, Sweat et al teaches the grating spectral filter is a reflective filter and is a grating incidence reflector (see col.5, lines 14-15).

As to claims 16-17, Sweat et al teaches the radiation source unit is a laser produced or plasma radiation source (see col.9, line 37) and has desired wavelengths selected from deep UV, visible radiation or 13.4nm EUV (see col.5, lines 50-65).

As to claim 18, a portion of the radiation of undesired wavelengths is deflected by the grating filter onto a structure such as an aperture or a diaphragm (84, 94).

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-19 are rejected under the judicially created doctrine of double patenting over claims 1-18 and 21 of U. S. Patent No. 6,678,037 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: "a support structure to support patterning", "a substrate table", "a radiation system", "a projection system", "a grating spectral filter" (see claim 19 of the present application and claim 1 of U.S.Pat'037 for example). In fact, the instant claims of the present application are broader version and re-written version of the above-mentioned U.S. Patent.

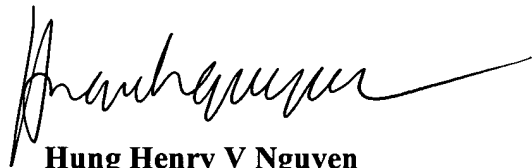
Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 571-272-2124. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Hung Henry V Nguyen', with a long horizontal flourish extending to the right.

**Hung Henry V Nguyen**  
**Primary Examiner**  
**Art Unit 2851**

hvn  
10/23/04